

10/519,829

## 1-2. (CANCELED)

3. (NEW) A device for evaluating parameters and selecting and implementing adjustment of gear ratios for a vehicle, the device comprising:

a microprocessor (8) being coupled to a drive train (1) of a vehicle via an engine actuating element (9), a clutch actuating element (10) and a transmission actuating element (11), the microprocessor (8) receiving at least one of operating parameters (5), driving parameters (6) and vehicle and transmission parameters (7) and generates output signals from the at least one of the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7) based on at least one of predetermined algorithms, parameters and diagrams;

the output signals being sent to at least one of the engine actuating element (9), the clutch actuating element (10) and the transmission actuating element (11) for controlling operation of the drive train (1); and

the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7) including at least one of an actuation frequency of an actuator and a service life of a gear to be engaged.

4. (NEW) The device according to claim 3, wherein the operating parameters (5) comprise at least one of:

- an accelerator position,
- a throttle position,
- a change in the accelerator position over time,
- a change in the throttle position over time,
- an acceleration of accelerator actuation,
- a braking signal, and
- a steering signal.

5. (NEW) The device according to claim 3, wherein the driving parameters (6) comprise at least one of:

- a flow rate of a fuel measuring unit,
- a load signal,
- an engine speed,
- an ignition angle adjustment,

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- 2 -

10/519,829

a coolant temperature, and  
an aggregate temperature.

6. (NEW) The device according to claim 3, wherein the vehicle and transmission parameters (7) include at least one of:

a transmission gear selector lever position,  
a transmission gear shifting device position,  
a transmission gear changing device position,  
a drive speed,  
a rotational speed of the drive train,  
a longitudinal acceleration of the vehicle,  
a transverse acceleration of the vehicle,  
a load condition of the vehicle,  
a tractive resistance of the vehicle,  
driving portions within different gear ratios,  
a length of time of engagement of a specific gear,  
a relationship between the length of time of engagement of the specific gears relative to other gears of the transmission,  
a distribution of temperatures within the transmission,  
an age of transmission oil,  
a transmission oil temperature,  
a transmission drive-through capacity,  
an amount of drive power passed through the transmission, and  
a portion of the amount of drive power passed through the transmission of the different gear ratios.

7. (NEW) A device for evaluating parameters and selecting and implementing adjustment of gear ratios for a vehicle, the device comprising:

a microprocessor (8) being respectively coupled to an engine, a starting element and a transmission of the vehicle via an engine actuating element (9), a starter actuating element (10) and a transmission actuating element (11), the microprocessor (8) receiving at least one of operating parameters (5), driving parameters (6) and vehicle and transmission parameters (7) and generating, from the

10/519,829

at least one of the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7), output signals based on at least one of predetermined algorithms, parameters and diagrams;

the output signals being sent to at least one of the engine actuating element (9) for controlling operation of the engine, the starter actuating element (10) for controlling operation of the starting element and the transmission actuating element (11) for controlling operation of the transmission;

the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7) comprising at least one of an actuation frequency of an actuator and a service life of a gear to be engaged.

8. (NEW) A device for evaluating parameters and selecting and implementing adjustment of gear ratios for a vehicle, the device comprising:

a microprocessor (8) being respectively coupled to an engine, a starting element and a transmission of the vehicle via an engine actuating element (9), a starter actuating element (10) and a transmission actuating element (11), the microprocessor (8) receiving at least one of operating parameters (5), driving parameters (6) and vehicle and transmission parameters (7) and generating, from the at least one of the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7), output signals based on at least one of predetermined algorithms, parameters and diagrams;

the output signals being sent to at least one of the engine actuating element (9) for controlling operation of the engine, the starter actuating element (10) for controlling operation of the starting element and the transmission actuating element (11) for controlling operation of the transmission;

the operating parameters (5), the driving parameters (6) and the vehicle and transmission parameters (7) comprising at least one of an actuation frequency of an actuator and a service life of a gear to be engaged;

the operating parameters (5) further comprising at least one of an accelerator position, a throttle position, a change in the accelerator position over time, a change in the throttle position over time, an acceleration of accelerator actuation, a braking signal and a steering signal;

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10/519,829

the driving parameters (6) further comprising at least one of a flow rate of a fuel measuring unit, a load signal, an engine speed, an ignition angle adjustment, a coolant temperature and an aggregate temperature; and

the vehicle and transmission parameters (7) further comprising at least one of a transmission gear selector lever position, a transmission gear shifting device position, a transmission gear changing device position, a drive speed, a rotational speed of the drive train, a longitudinal acceleration of the vehicle, a transverse acceleration of the vehicle, a load condition of the vehicle, a tractive resistance of the vehicle, driving portions within different gear ratios, a length of time of engagement of a specific gear, a relationship between a length of time of engagement of the specific gear relative to other gears of the transmission, a distribution of temperatures within the transmission, an age of transmission oil, a transmission oil temperature, a transmission drive-through capacity, an amount of drive power passed through the transmission, a portion of the amount of drive power passed through the transmission of the different gear ratios.

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